

## CLAIMS

1. A receiver which converts a received signal directly to a baseband signal, comprising:

5 a switched-capacitor filter controlling a cutoff frequency when the baseband signal is filtered according to a control signal provided for a switched-capacitor element;

an oscillator generating a periodic signal;  
10 and

a divider dividing a periodic signal generated by said oscillator according to the received signal, characterized in that

an output signal from the divider is provided  
15 as the control signal for the switched-capacitor element.

2. The receiver according to claim 1, characterized in that

20 said divider is a programmable counter and is a divider in a system of a division to an integral multiple or a fractional-N system.

3. The receiver according to claim 1,  
25 characterized in that

said switched-capacitor filter comprises at least an amplifier, and a resistor element, which functions as a feedback resistor of the amplifier, is realized by the switched-capacitor element.

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4. A receiver which converts a received signal directly to a baseband signal, comprising:

an oscillator generating a periodic signal;

a mixer for mixing a periodic signal generated  
10 by said oscillator with the received signal, and  
outputting a baseband signal;

a switched-capacitor filter controlling a  
cutoff frequency when filtering the baseband signal  
output from said mixer according to a control  
15 signal provided for a switched-capacitor element;  
and

a divider dividing a periodic signal generated  
by said oscillator according to the received signal,  
characterized in that

20 the output signal from said divider is  
provided as the control signal for the switched-  
capacitor element.